

SCIENCE - Biology

Key Stage	Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS3	7	The variety of life Life processes Plants and animals Microscopes Cells	The variety of life - continued	Reproduction The human male and female reproductive systems Fertilisation and gestation Puberty and adolescence The menstrual cycle Reproduction in flowering plants	Energy and living things Photosynthesis and leaves Respiration Breathing and the lungs	Energy and living things - continued	Investigating biology 'Same or different?' questions 'How are things related?' questions Scatter graphs Practical skills
	8	Introductory lessons - scientific skills Relationships between living things Sampling and identification Interdependence - feeding and pollination Adaptations of predators and prey Toxic materials	Microbes and disease Bacteria Viruses Pathogens and disease Treatment of disease	Nutrition and digestion Food tests Mechanical and chemical digestion Absorption Bacteria in the gut How plants absorb nutrients	Nutrition and digestion - continued	The Healthy body Muscles and movement The effect of exercise Anaerobic respiration in animals, plants and microorganisms Nutrition and lifestyle Drugs Maternal lifestyle and the foetus	The healthy body - continued
	9	Scientific skills - Tables Graphs Identifying and describing trends Calculating rates	Genetics, inheritance and evolution Variation and classification DNA, genes and chromosomes Extraction of DNA Evolution	GCSE begins (BIO1 - Cells and transport) Cells and organelles Cell division by mitosis Microscopy Diffusion Osmosis Active transport	GCSE: (BIO1 - Cells and transport) - continued	GCSE: (BIO1 - Cells and transport) - continued	GCSE: (BIO1 - Cells and transport) - continued
	Students take mid-topic google quiz and end of topic assessment						

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KS4	10	Cell Structure and cell Division	Transport in cells	Tissues, organs and organ systems Health and disease	Enzymes and Digestion	Infection and response	Bioenergetics
	11	The Nervous system The Endocrine system.	DNA and reproduction Genetics	Evolution and Classification Organisms and their environment	Human impact on the environment Biomass, food and biotechnology	Revision	EXAMS
		Students take end of topic assessments					
KS5	12	Cells and Magnification Biological Molecules	Nucleic Acid Enzymes Biological membranes Exchange surfaces	Cell division, cell diversity and cellular organisation Transport in Animals Transport in Plants	Classification and evolution Biodiversity Communicable disease	Revision and exam practise. Completion of PAGs	Ecology Population and sustainability Field trip
	13	Homeostasis, communication and nerves. Photosynthesis Respiration	Hormones and Excretion Plant and Animal responses.	Cellular control Manipulating Genomes	Genetics and living systems. Patterns of Inheritance Cloning and Biotechnology	Revision and exam practise. Completion of PAGs	